

AIR QUALITY PERMIT

Issued to:	Montana Limestone Company	Permit: #2900-02
	P.O. Box 5540	Administrative Amendment (AA)
	Bismarck, ND 58506-5540	Request Received: 06/20/03
		Department Decision on AA Issued: 07/17/03
		Permit Final: 08/02/03
		AFS: 009-0003

An air quality permit, with conditions, is hereby granted to the Montana Limestone Company (Montana Limestone), pursuant to Sections 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and Administrative Rules of Montana (ARM) 17.8.740, *et seq.*, as amended, for the following:

SECTION I: Permitted Facilities

A. Plant Location

Montana Limestone operates a limestone quarrying operation, including limestone removal and handling activities, primary and secondary crushing, screening, and loadout. The location is 19 miles south of Bridger in Sections 24, 25, 19, and 30, Township 8 South, Range 25 and 26 East, Carbon County.

B. Current Permit Action

On June 20, 2003, Montana Limestone submitted a request to the Department of Environmental Quality (Department) for an administrative amendment to clarify that Montana Limestone was purchased by, and is a subsidiary of, Dakota Coal Company with a corresponding change of address. The permit format and rule references have also been updated.

SECTION II: Conditions and Limitations

A. Emission Limitations

1. Process fugitive emissions shall be limited to 10% opacity (ARM 17.8.752).
2. Maximum annual limestone production shall be limited to 850,000 tons during any 12-month rolling period (ARM 17.8.749).
3. Watering and/or chemical stabilization shall be used as necessary to minimize road dust and wind erosion emissions (ARM 17.8.749).

B. Testing Requirements

1. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
2. The Department may require testing (ARM 17.8.105).

C. Operational Reporting Requirements

1. Montana Limestone shall supply the Department with annual production information for all emission points, as required by the Department in the annual emission inventory request. The request will include, but is not limited to, all sources of emissions identified in the emission inventory contained in the permit analysis.

Production information shall be gathered on a calendar-year basis and submitted to the Department by the date required in the emission inventory request. Information shall be in the units required by the Department. This information may be used for calculating operating fees, based on actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505).

2. Montana Limestone must notify the Department of proposed changes to or replacement of affected facilities (crushers, screens, conveyors, or storage bins) in order to determine possible New Source Performance Standards (NSPS) requirements.
3. Montana Limestone shall notify the Department of any construction or improvement project conducted pursuant to ARM 17.8.745(1) that would include a change in the control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location, or fuel specifications, or would result in an increase in source capacity above its permitted operation or the addition of a new emissions unit.

The notice must be submitted to the Department, in writing, 10 days prior to start up or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745(1)(d) (ARM 17.8.745).

4. Montana Limestone shall document, by month, the total production of the facility. By the 25th of each month, Montana Limestone shall total the production during the previous 12 months to verify compliance with the limitation in Section II.A.2. A written report of the compliance verification shall be submitted along with the annual emissions inventory (ARM 17.8.749).

SECTION III: General Conditions

- A. Inspection – Montana Limestone shall allow the Department's representatives access to the source at all times for the purpose of making inspections, surveys, collecting samples, obtaining data, auditing any monitoring equipment (CEMS, CERMS) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.
- B. Waiver – The permit and all the terms, conditions, and matters stated herein shall be deemed accepted if Montana Limestone fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving Montana Limestone of the responsibility for complying with any applicable federal or Montana statute, rule or standard, except as specifically provided in ARM 17.8.740, *et seq.* (ARM 17.8.756).
- D. Enforcement – Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties or other enforcement as specified

in Section 75-2-401, *et seq.*, MCA.

- E. Appeals – Any person or persons jointly or severally adversely affected by the Department's decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefore, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The Department's decision on the application is not final unless 15 days have elapsed and there is no request for a hearing under this section. The filing of a request for a hearing postpones the effective date of the Department's decision until the conclusion of the hearing and issuance of a final decision by the Board.
- F. Permit Inspection – As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by Department personnel at the location of the permitted source.
- G. Permit Fee – Pursuant to Section 75-2-220, MCA, as amended by the 1991 Legislature, failure to pay the annual operation fee by Montana Limestone may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.

Montana Limestone
Permit Analysis
Permit #2900-02

I. Introduction and Project Description

A. Site Location

Montana Limestone Company (Montana Limestone) operates a limestone quarrying operation, including limestone removal and handling activities, primary and secondary crushing, screening, and loadout. The location is 19 miles south of Bridger in Sections 24, 25, 19, and 30, Township 8 South, Range 25 and 26 East, Carbon County.

B. Source Description

Montana Limestone could potentially mine approximately 850,000 tons of specification limestone each year. The operation includes topsoil and overburden removal, limestone removal (drilling and blasting), crushing (primary and secondary), screening, conveying, and loading. The limestone is used by sugar factories, quick-lime manufacturing companies, electric power plants, and commercial feed customers. Watering and chemical stabilization is used, as necessary, to control fugitive emissions.

Montana Limestone operates an ash disposal site adjacent to the permitted quarry as a contractor to Yellowstone Energy Limited Partnership (YELP). YELP is the responsible entity with respect to the ash disposal operation, which is not addressed in this permit.

C. Permit History

On March 3, 1996, Montana Limestone was issued **Permit #2900** for a limestone quarrying operation located south of Bridger. The operation includes the removal and handling activities, primary and secondary crushing, screening, and loadout of limestone.

On March 22, 2000, the permit was modified to clarify that the limitation on production is a facility wide production limit and includes both limestone and waste rock production. **Permit #2900-01** replaced Permit #2900.

D. Current Permit Action

On June 20, 2003, Montana Limestone submitted notification of a change of ownership and address. Montana Limestone was purchased by, and is a subsidiary of, Dakota Coal Company. The permit has been updated with this information. Also, the permit format and rule references have been updated. **Permit #2900-02** replaces Permit #2900-01.

E. Additional Information

Additional information, such as applicable rules and regulations, Best Available Control Technology (BACT) determinations, air quality impacts, and environmental assessments are included in the analysis associated with each change to the permit.

II. Applicable Rules and Regulations

The following are partial quotations of some applicable rules and regulations, which apply to the operation. The complete rules are stated in the Administrative Rules of Montana (ARM) and are available upon request from the Department. Upon request, the Department will provide references for locations of complete copies of all applicable rules and regulations or copies where appropriate.

A. ARM 17.8.101, Subchapter 1- General Provisions, including, but not limited to:

1. ARM 17.8.101, Definitions. This rule includes a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
2. ARM 17.8.105, Testing Requirements. Any person or persons responsible for the emissions of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, provide the facilities and necessary equipment (including instruments and sensing devices) and shall conduct tests, emission or ambient, for such periods of time as may be necessary using methods approved by the Department.
3. ARM 17.8.106, Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by the Department, any source, or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq.*, Montana Codes Annotated (MCA).

Montana Limestone shall comply with the requirements contained in the Montana Source Test Protocol and Procedures Manual, including, but not limited to, using the proper test methods and supplying the required reports. A copy of the Montana Source Test Protocol and Procedures Manual is available from the Department upon request.

4. ARM 17.8.110, Malfunctions. (2) The Department must be notified promptly by telephone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation, or to continue for a period greater than 4 hours.
5. ARM 17.8.111, Circumvention. (1) No person shall cause or permit the installation or use of any device or any means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant which would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner that a public nuisance is created.

B. ARM 17.8.201, Subchapter 2 - Ambient Air Quality, including, but not limited to the following:

1. ARM 17.8.210, Ambient Air Quality Standards for Sulfur Dioxide
2. ARM 17.8.211, Ambient Air Quality Standards for Nitrogen Dioxide
3. ARM 17.8.212, Ambient Air Quality Standards for Carbon Monoxide
4. ARM 17.8.213, Ambient Air Quality Standard for Ozone
5. ARM 17.8.214, Ambient Air Quality Standard for Hydrogen Sulfide
6. ARM 17.8.220, Ambient Air Quality Standard for Settled Particulate Matter
7. ARM 17.8.221, Ambient Air Quality Standard for Visibility
8. ARM 17.8.222, Ambient Air Quality Standard for Lead
9. ARM 17.8.223, Ambient Air Quality Standard for PM₁₀.

Montana Limestone must maintain compliance with the applicable ambient air quality standards.

C. ARM 17.8.301, Subchapter 3 - Emission Standards, including, but not limited to:

1. ARM 17.8.304, Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged into an outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.
2. ARM 17.8.308, Particulate Matter, Airborne. (1) This rule requires an opacity limitation of 20% for all fugitive emissions sources and that reasonable precautions be taken to control emissions of airborne particulate.
3. ARM 17.8.309, Particulate Matter, Fuel Burning Equipment. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere particulate matter caused by the combustion of fuel in excess of the amount determined by this section.
4. ARM 17.8.310, Particulate Matter, Industrial Process. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere particulate matter in excess of the amount set forth in this section.
5. ARM 17.8.322, Sulfur Oxide Emissions - Sulfur in Fuel. This rule requires that no person shall burn liquid, solid, or gaseous fuel in excess of the amount set forth in this section.
6. ARM 17.8.340, Standard of Performance for New Stationary Sources. This rule incorporates, by reference, 40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS). No NSPS subparts are directly applicable; however, portions of Subpart OOO – Nonmetallic Mineral Processing Plants – have been incorporated under the general permit authority because of the similarity of the operations.
7. ARM 17.8.341, Standard of Performance of Hazardous Air Pollutants. This source shall comply with the standards and provisions of 40 CFR Part 61, as appropriate.

D. ARM 17.8.501, Subchapter 5 - Air Quality Permit Application, Operation and Open Burning Fees, including, but not limited to:

1. ARM 17.8.504, Air Quality Permit Application Fees. This rule requires that an applicant submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to the Department. Montana Limestone was not required to submit a permit application fee for the current permit action because it is an administrative action.
2. ARM 17.8.505, Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit, excluding an open burning permit, issued by the Department; and the air quality operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.

An air quality operation fee is separate and distinct from an air quality permit application fee. The annual assessment and collection of the air quality operation fee, as described above, shall take place on a calendar-year basis. The Department may insert into any final permit issued after the effective date of these rules such conditions as may be

necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions which pro-rate the required fee amount.

E. ARM 17.8, Subchapter 7 – Permit, Construction and Operation of Air Contaminant Sources, including, but not limited to:

1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a facility to obtain an air quality permit or permit alteration if they construct, alter or use any air contaminant sources that have the potential to emit greater than 25 tons per year of any pollutant. Montana Limestone has the potential to emit more than 25 tons per year of PM₁₀; therefore, an air quality permit is required.
3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.
4. ARM 17.8.745 Montana Air Quality Permits—Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that are not subject to the Montana Air Quality Permit Program.
5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. This rule requires that a permit application be submitted prior to installation, alteration or use of a source. Montana Limestone was not required to submit an application for the current permit action because it is an administrative action.
6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.
7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized. A BACT review was not required for the current permit action because there are no new or modified sources permitted as part of this action.
8. ARM 17.8.755 Inspection of Permit. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.
9. ARM 17.8.756 Compliance with Other Requirements. This rule states that nothing in the permit shall be construed as relieving Montana Limestone of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq.*
10. ARM 17.8.759 Review of Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.
11. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or altered source may contain a condition providing that the permit will expire

unless construction is commenced within the time specified in the permit, which in no event may be less than 1 year after the permit is issued.

12. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).
13. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, subchapters 8, 9, and 10.
14. ARM 17.8.765 Transfer of Permit. This rule states that an air quality permit may be transferred from one person to another if written notice of Intent to Transfer, including the names of the transferor and the transferee, is sent to the Department.

F. ARM 17.8, Subchapter 8 – Prevention of Significant Deterioration of Air Quality, including, but not limited to:

1. ARM 17.8.801 Definitions. This rule is a list of applicable definitions used in this subchapter.
2. ARM 17.8.818 Review of Major Stationary Sources and Major Modifications--Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through 17.8.827 shall apply to any major stationary source and any major modification, with respect to each pollutant subject to regulation under the FCAA that it would emit, except as this subchapter would otherwise allow.

This facility is not a major stationary source since this facility is not a listed source and the facility's potential to emit is below 250 tons per year of any pollutant (excluding fugitive emissions).

G. ARM 17.8, Subchapter 12 – Operating Permit Program Applicability, including, but not limited to:

1. ARM 17.8.1201 Definitions. (23) Major Source under Section 7412 of the FCAA is defined as any source having:
 - a. Potential to Emit (PTE) > 100 tons/year of any pollutant;
 - b. PTE > 10 tons/year of any one Hazardous Air Pollutant (HAP), PTE > 25 tons/year of a combination of all HAPs, or lesser quantity as the Department may establish by rule; or
 - c. PTE > 70 tons/year of PM₁₀ in a serious PM₁₀ nonattainment area.

2. ARM 17.8.1204 Air Quality Operating Permit Program. (1) Title V of the FCAA amendments of 1990 requires that all sources, as defined in ARM 17.8.1204(1), obtain a Title V Operating Permit. In reviewing and issuing Air Quality Permit #2900-02 for Montana Limestone, the following conclusions were made.

- a. The facility's PTE is less than 100 tons/year for any pollutant (excluding fugitive emissions).
- b. The facility's PTE is less than 10 tons/year for any one HAP and less than 25 tons/year of all HAPs.
- c. This source is not located in a serious PM₁₀ nonattainment area.
- d. This facility is not subject to any current NSPS.
- e. This facility is not subject to any current NESHAP standards.
- f. This source is not a Title IV affected source, nor a solid waste combustion unit.
- g. This source is not an EPA designated Title V source.

Based on these facts, the Department determined that Montana Limestone is a minor source of emissions as defined under Title V. However, if minor sources subject to NSPS are required to obtain a Title V Operating Permit in the future, Montana Limestone will be required to obtain a Title V Operating Permit.

III. BACT Analysis

A BACT determination is required for each new or altered source. Montana Limestone shall install on the new or altered source the maximum air pollution control capability, which is technically practicable and economically feasible, except that BACT shall be utilized. A BACT review was not required for this administrative amendment; however, the following BACT determination and emission inventory is included from the original permit.

IV. Emission Inventory

The following lists the estimated particulate emissions for the project. The emission control measures shown and the opacity limitations included as conditions of this permit have been determined to represent BACT for this project. These control measures are consistent with similar operations and are capable of achieving the opacity limitations.

Activity	Particulate Emission Factor		Control Measures	% Control	Tons/Yr
Drilling	1.5 lb/holes	2500 holes/yr	Cyclone	70	0.6
Blasting	50 lb/blast	50 blasts/yr	-----	--	1.3
Ore Removal	0.01 lb/ton	850,000 ton/yr	-----		
Ore Dumping	0.01 lb/ton	"	Minimize Fall	50	
Primary Crushing	0.02 lb/ton	"	Distance	"	
Secondary Crushing	0.05 lb/ton	"	Watering	"	
Screens (3)	0.03 lb/ton	"	Watering	"	
Conveyors (4)	0.04 lb/ton	"	Watering	"	
Loadout	0.01 lb/ton	"	Watering	"	
	-----		Minimize Fall		
	0.17 lb/ton		Distance		36.1
Hauling(Front End Loaders)	6 lb/vmt	3,500 vmt/yr	Watering	85	1.6
Diesel Exhaust	17.7 lb/1000 gal	200,000 gal/yr	-----	--	1.8
Total Particulate					41.4

Gaseous Emissions

Diesel Exhaust				<u>Ton/Yr</u>
(NOx)	286.1	lb/1000 gal	200,000 gal	28.6
(SO ₂)	31.2	"	"	3.1
(HC)	21.0	"	"	2.1

V. Existing Air Quality/Impact Analysis

No air quality monitoring has been done in the area. Air pollutant levels are assumed to be similar to background levels for rural Montana areas. Based on the low level of pollutant emissions, the impact to ambient air quality should be minimal.

VI. Taking or Damaging Implication Analysis

As required by 2-10-101 through 105, MCA, the Department conducted a private property taking and damaging assessment and determined there are no taking or damaging implications.

VII. Montana Environmental Policy Act (MEPA) Compliance

An environmental assessment was not required for the current permit action because it is an administrative action.

Permit Analysis Prepared by: Pat Driscoll

Date: July 1, 2003